

**APPENDIX A - CLAIM AMENDMENTS**

**Serial No.: 10/668,750**  
**Docket No.: 11242-320**

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1. (Currently amended) A device for assessing the degree of systemic perfusion in a patient, the device comprising: ~~a blood-flow sensor means~~, adapted to be positioned adjacent a mucosal surface within a patient's body ~~for measuring to measure~~ blood flow in adjacent tissue; ~~a PCO2 sensor means~~, adapted to be positioned adjacent the mucosal surface ~~for measuring to measure~~ PCO2 in the adjacent tissue; an indicating ~~means element~~ operably connected to the blood-flow sensor ~~means~~ and the PCO2 sensor ~~means~~ ~~for indicating to indicate~~ the measured blood flow and the measured PCO2, wherein a measured blood flow in the adjacent tissue that is substantially lower than a normal measured blood flow and a PCO2 measurement that is substantially higher than a normal PCO2 measurement is indicative of the degree of systemic perfusion of the patient; and a positioning ~~means for locating or maintaining element to locate and maintain~~ the blood-flow sensor ~~means~~ at a position mucosal surface in the upper respiratory/digestive tract, the positioning ~~means element~~ comprising a flexible holder member having a holder passage extending within at least a portion of the holder member and structured to receive the blood-flow sensor ~~means~~, wherein at least a portion of the blood-flow sensor means extending outside of the holder passage and engageable with is exposed along a longitudinal axis thereof and engages the position mucosal surface in the upper respiratory/digestive tract.
2. (Original) The device of claim 1, wherein the mucosal surface is in the gastrointestinal tract.
3. (Original) The device of claim 2, wherein the mucosal surface is in the esophagus.
4. (Original) The device of claim 2, wherein the mucosal surface is in the stomach.
5. (Original) The device of claim 2, wherein the mucosal surface is in the jejunum.
6. (Original) The device of claim 2, wherein the mucosal surface is in the colon.

7. (Original) The device of claim 2, wherein the mucosal surface is in the rectum.
8. (Original) The device of claim 1, wherein the mucosal surface is in the upper respiratory/digestive tract.
9. (Original) The device of claim 8, wherein the mucosal surface is in the nasal passages.
10. (Original) The device of claim 9, wherein the mucosal surface is in the vestibule of the nasal cavity.
11. (Original) The device of claim 9, wherein the mucosal surface is in the nasal cavity.
12. (Original) The device of claim 9, wherein the mucosal surface is in the middle nasal conchae.
13. (Original) The device of claim 9, wherein the mucosal surface is in the inferior nasal conchae.
14. (Original) The device of claim 9, wherein the mucosal surface is in the choana.
15. (Original) The device of claim 9, wherein mucosal surface is in the pharyngeal opening of the auditory tube.
16. (Original) The device of claim 8, wherein the mucosal surface is in the oral cavity.
17. (Original) The device of claim 8, wherein the mucosal surface is in the pharynx.
18. (Original) The device of claim 8, wherein the mucosal surface is in the oropharyngeal passage.
19. (Original) The device of claim 1, wherein the mucosal surface is accessible by a mouth and connects with the gastrointestinal tract.
20. (Original) The device of claim 1, wherein the mucosal surface is accessible by a nose and connects with the upper respiratory/digestive tract.

21. (Original) The device of claim 15, wherein the mucosal surface is a sublingual surface.
22. (Canceled)
23. (Previously presented) The device of claim 1, wherein the holder member is adapted to fit within the oral-nasal cavity of the patient and maintain the blood flow sensor in place adjacent the mucosal surface.
24. (Previously presented) The device of claim 23, wherein the holder member is adapted to fit within the mouth of the patient and hold the blood flow sensor in place adjacent the mucosal surface.
25. (Previously presented) The device of claim 23, wherein the holder member is adapted to position the blood flow sensor adjacent a sublingual mucosal surface.
26. (Previously presented) The device of claim 23, wherein the holder member is constructed to fit between the inside of a lip and gum of the patient.
27. (Previously presented) The device of claim 23, wherein the holder member is adapted to fit within the vestibule of the nasal cavity of the patient and hold the sensor in place adjacent the mucosal surface.
28. (Original) The device of claim 1, wherein the blood-flow sensor is a laser-Doppler blood-flow sensor.
29. (Original) The device of claim 1, wherein the blood-flow sensor is an ultrasound-Doppler blood-flow sensor.
30. (Original) The device of claim 1, further comprising a pH sensor.
31. (Original) The device of claim 1, further including a means for determining the rate of change of blood flow.

32. (Original) The device of claim 31 wherein the determining means comprises a circuit for generating a signal representing rate-of-change of blood flow.

33. (Previously presented) A device for assessing the degree of systemic perfusion in a patient, the device comprising: a blood-flow sensor, adapted to be positioned adjacent a mucosal surface within a patient's body and measuring blood flow in adjacent tissue; an indicating means operably connected to the sensor means for indicating the measured blood flow, whereby the degree of systemic perfusion of the patient may be deduced; and a sensor holder with an inner portion and an outer portion, said inner portion having a shape generally corresponding to the shape of the area under the patient's tongue, said holder forming at least one holder passage extending from said outer portion to said inner portion, wherein the sensor is located within the holder passage.

34. (Previously presented) The device of claim 33, wherein the sensor holder has an upper surface that is adapted to support the tongue of the patient.

35. (Original) The device of claim 33, wherein the outer portion has a slot for receiving the patient's frenulum, and the holder passage has an inner end lying on one side of said slot.

36. (Original) The device of claim 33, wherein at least a portion of the holder is comprised of an elastomeric material.

37. (Currently amended) A device for assessing the degree of systemic perfusion in a patient, the device comprising: a blood-flow sensor~~[[,]]~~ adapted to be positioned adjacent a mucosal surface within a patient's body ~~and-measuring~~ to measure blood flow in adjacent tissue; a pH sensor~~[[,]]~~ adapted to be positioned adjacent the mucosal surface ~~for-measuring~~ to measure pH in the adjacent tissue; an indicating ~~means~~ element operably connected to the sensor ~~means-for~~ indicating to indicate the measured blood flow and the measured pH, wherein a measured blood flow in the adjacent tissue that is substantially lower than a normal measured blood flow and a pH measurement that is substantially lower than a normal pH measurement is indicative of the degree of systemic perfusion of the patient; and a flexible sensor holder having a holder passage extending within at least a portion of the sensor holder and structured to receive the blood-flow

sensor, ~~wherein~~ at least a portion of the blood-flow sensor ~~is exposed from within the holder passage and engageable with~~ along a longitudinal axis thereof and engages the mucosal surface.

38. (Currently amended) A device for assessing the degree of systemic perfusion in a patient, the device comprising: a blood-flow sensor~~[[,]]~~ adapted to be positioned adjacent a mucosal surface accessible by a mouth and connecting with an upper respiratory/digestive tract in a patient's body ~~and measuring to measure~~ blood flow in adjacent tissue; an indicating means ~~element~~ operably connected to the sensor ~~means for indicating to indicate~~ the measured blood flow, whereby the degree of systemic perfusion of the patient may be deduced; and a sensor holder adapted to hold the blood-flow sensor adjacent ~~[[the]] a~~ mucosal surface in the upper respiratory/digestive tract, the sensor holder comprising a flexible member having a sensor holder passage with the blood-flow sensor disposed therein, ~~wherein~~ at least a portion of the blood-flow sensor ~~being is exposed from within the sensor holder passage and structured to~~ along a longitudinal axis thereof and engages the mucosal surface.

39-60. (Canceled)

61. (Currently amended) A device for assessing the degree of systemic perfusion in a patient, the device comprising: a blood-flow sensor adapted to be positioned adjacent a mucosal surface within a patient's body ~~and measuring to measure~~ blood flow in adjacent tissue; a pH sensor adapted to be positioned adjacent the mucosal surface ~~for measuring to measure~~ pH in the adjacent tissue; a PCO<sub>2</sub> sensor adapted to be positioned adjacent the mucosal surface ~~for measuring to measure~~ PCO<sub>2</sub> in the adjacent tissue; an indicating means ~~element~~ operably connected to the blood-flow sensor, the pH sensor and the PCO<sub>2</sub> sensor ~~for indicating to indicate~~ the measured blood flow, the measured pH and the measured PCO<sub>2</sub>, wherein a measured blood flow in the adjacent tissue that is substantially lower than a normal measured blood flow, and a pH measurement that is substantially lower than a normal pH measurement, and a PCO<sub>2</sub> measurement that is substantially higher than a normal PCO<sub>2</sub> measurement, is indicative of the degree of systemic perfusion of the patient; and a positioning means ~~element~~ for positioning the blood-flow sensor adjacent the mucosal surface, the positioning means ~~element~~ comprising a flexible sensor holder having a holder passage extending within at least a portion of the sensor

holder, wherein the blood-flow sensor is located within the holder passage, and wherein at least a portion of the blood-flow sensor ~~being is~~ exposed ~~outside the sensor holder and structured to~~ along a longitudinal axis thereof and engages the mucosal surface.